

## 세포교정영양요법(OCNT)을 이용한 틱 장애 개선 사례

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## A Case Study on the Improvement of Tic Disorders Using Ortho-Cellular Nutrition Therapy (OCNT)

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## ABSTRACT

**Objective:** Report of a case study on the improvement of tic disorders using Ortho-Cellular Nutrition Therapy (OCNT).

**Methods:** OCNT was applied for approximately 4 months to a 9-year-old Korean male experiencing motor tics, and progress was monitored through auriculotherapy.

**Results:** After OCNT, there was a significant improvement in the symptoms of motor tics, as well as digestive disorders and immunity enhancement, enhancing the quality of life.

**Conclusion:** The application of OCNT can help alleviate symptoms in children with tic disorders.

**Keywords:** Ortho-Cellular Nutrition Therapy (OCNT), Tic Disorder, Motor Tics, Dyspepsia, Auriculotherapy

## Introduction

Tic disorder (TD) refers to the movement of parts of their body involuntarily or making sounds without any particular reason. These include motor tics such as continuously blinking eyes, shaking heads, or twitching shoulders, and vocal tics like sniffing sounds or coughing sounds. Typically, one displays either motor or vocal tics. However, Tourette syndrome (TS), a subtype of tic disorder, is a neurological disorder that triggers impulsive motor and vocal tics (alternately appearing).<sup>1</sup> The diagnosis of Tourette syndrome is made when multiple involuntary motor tics and at least one vocal tic persist continuously for 12 months.<sup>2</sup>

Tics can be either simple or complex motor hyperactivity and often are accompanied with uncomfortable sensations in the affected area. The pathophysiology of Tourette syndrome is yet unknown, but developmental disorders in synaptic neurotransmission, especially in the basal ganglia, the subfrontal area, and the frontal lobe, are thought to potentially induce tics.<sup>3</sup>

Tic disorders like Tourette syndrome typically occur in childhood with a prevalence rate of 0.5-0.8 percents, but symptoms naturally disappear before the end of adolescence (around 18 years old).<sup>4</sup> However, 30 percents of patients with

Tourette syndrome continue to show symptoms into adulthood, with an overall prevalence in adults reported to be between 0.01 to 0.09 percents.<sup>5</sup>

Current known treatments for tic disorders can be broadly divided into pharmacological and non-pharmacological methods. The primary non-pharmacological treatment involves behavior correction and psychoeducation under the guidance of trained professionals. However, these methods require the active participation of both the trained professional and the patient and are particularly effective in patients over the age of 9, thus not universally applicable to all patients.<sup>6</sup>

Another treatment method, pharmacotherapy, can alleviate tic symptoms by regulating the levels of neurotransmitters and altering the sensitivity of receptors. However, as most patients are young children whose nervous systems are not fully developed, there is a potential for negative impacts on normal development.<sup>7</sup> Due to these controversies, only a limited number of medications such as haloperidol, pimozide, aripiprazole, and tiapride are used for tic disorders. However, taking these drugs can lead to many side effects such as dizziness, drowsiness, muscle tremors, movement disorders, and metabolic syndrome.

The treatment of tic disorders is very challenging for both patients and caregivers. Moreover, a sudden cessation of treatment can lead to an exacerbation of tic symptoms. Most treatments are conducted over a year or more, with a slow examination of prognosis. During this process, the mental and financial burden can be significant for the patient, leading to considerable difficulties. Therefore, a new treatment approach different from existing methods is needed.

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In this case study, the patient had motor tics and frequently complained of indigestion and poor eating habits, which significantly lowered his quality of life. OCNT was applied for approximately 4 months, and the results are reported with the application of auricular acupuncture.

## Case Study

### 1. Subject

A case of tic disorder involving a child.

- 1) Name: Kim O (M/9 years old)
- 2) Diagnosis: Tic disorder
- 3) Date of onset: March, 2021
- 4) Treatment duration: March 8, 2024, to June 27, 2024
- 5) Primary symptoms: Motor tics
- 6) Medical history: None
- 7) Social history: None
- 8) Family history: None
- 9) Medications and Treatments Applied: None

### 2. Methods

OCNT was administered as follows:

#### First OCNT

Hwapyeongwon (001, once a day, 1 packet per dose)  
 Resplex (101, twice a day, 1 packet per dose)  
 Baekhoga Ginseng (101, twice a day, 1 packet per dose)  
 Digestive enzymes (101, twice a day, 1 packet per dose)  
 \* Additionally, a reduction in instant food consumption and dietary habit correction were implemented.

#### Second OCNT

Digestive enzymes (101, twice a day, 1 packet per dose)  
 Bioplex Kids (101, twice a day, 1 packet per dose)

#### Third OCNT

Digestive enzymes (101, twice a day, 1 packet per dose)  
 Bioplex Kids (101, twice a day, 1 packet per dose)  
 Resplex (100, once a day, 1 packet per dose)

#### Fourth OCNT

Symptoms were resolved, proceeding with OCNT as follows:  
 Vivakids Gold (101, twice a day, 1 packet per dose)

Noeufa Hempseed Oil (001, once a day, 1 packet per dose)

## Results

The subject of this case study was a 9-year-old child with abdominal tics, habitually jerking his head and touching his groin as motor tics. Additionally, he had difficulties eating properly and digesting food. About 5 days after starting OCNT, the frequency of touching the groin decreased, and he began eating better. Furthermore, his digestion improved, and his abdominal and neck tics seemed to improve.

After the second OCNT, the neck tic disappeared, and the frequency and severity of the abdominal tic decreased by about 90%. After the third OCNT, the abdominal tic also disappeared, and the frequency of touching the groin significantly reduced to only briefly in the evening. By the fourth OCNT, all symptoms had resolved.

Applying auricular acupuncture to track the patient's condition showed that the shenmen point was initially red but gradually faded. Additionally, the gastrointestinal area was initially very narrow, indicating stress affecting the stomach, intestines, and liver. As OCNT progressed, this area expanded, and the amount of food consumed seemed to increase. (Fig. 1.)

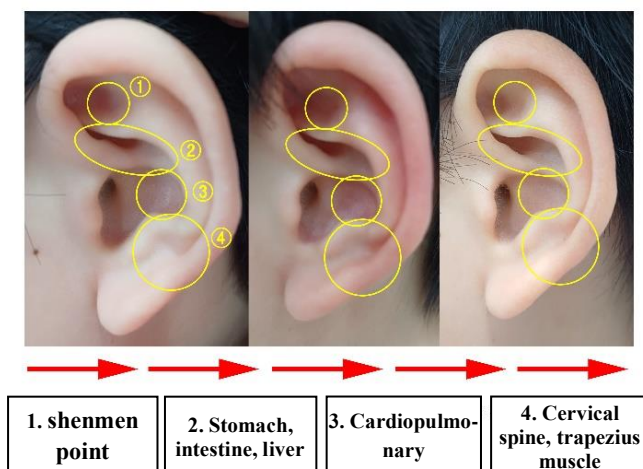
The patient, who typically had a low food intake, suffered from weakened immunity and frequent cold symptoms, diminishing his quality of life. Additionally, visible inflammation was observed in the cardiopulmonary area. However, with the implementation of OCNT, normal digestive functions were restored, enabling normal eating habits, and the cardiopulmonary area appeared clearer upon examination with auricular acupuncture. Furthermore, the discomfort caused by colds was also alleviated.

The excessive tension in the cervical spine and trapezius muscles can reduce oxygen supply to the brain and affect brain function. Moreover, the excessive tension in the trapezius muscles can impact the rectus abdominis, potentially exacerbating tic symptoms. Therefore, reducing the tension in the cervical spine and trapezius muscles can decrease motor tics, and relaxing the cervical spine can improve muscle and nerve actions affecting the eyes, potentially alleviating eye tic symptoms.

## Discussion

Neurological movement disorders can be seen as a combination of various abnormal movement issues. These include excessive muscle activity and abnormal muscle movements, where excessive muscle activity can involve tremors and spontaneous muscle spasms leading to dystonic muscle spasms. Abnormal muscle conditions can manifest as muscle tension syndrome or Parkinson's disease, characterized by abnormal muscle contractions, slow movement, tremors, and muscle rigidity. Lastly, movements like tics, which are repetitive and uncontrollable, differ from normal movements.

In this case, the patient's nodding tic movements are thought to be due to abnormal movements in the cervical spine and trapezius muscles, potentially impacting the rectus abdominis connected to the upper body muscles, thus causing abdominal tic symptoms. Patients with Tourette Syndrome show characteristics of stronger muscle contractions



**Fig 1.** Changes in the patient before and after the application of OCNT through Auriculotherapy.

compared to healthy individuals.<sup>8</sup> Therefore, reducing excessive skeletal muscle tension and applying OCNT based on the literature helped alleviate tic symptoms.

Most patients suffering from chronic neurological disorders like tic disorders and Tourette Syndrome exhibit depression, anxiety, obsessive-compulsive disorders, emotional regulation disorders, and self-aggressiveness, which can significantly impair life quality more than the tic disorder itself.<sup>9</sup> Hwapyeongwon, which contains bamboo leaf ingredients, has been used historically for its calming effects on the mind and body. Studies have shown that bamboo leaf extract can significantly reduce anxiety levels.<sup>10</sup> Furthermore, intake of the resveratrol component in Resplex has been reported to improve stress hormone levels, inflammation markers, and cardiovascular health.<sup>11-14</sup> Therefore, using Hwapyeongwon and Resplex to reduce stress and regulate blood pressure could help alleviate symptoms in patients experiencing emotional stress due to tic disorders. It is believed that the patient's shenmen point area, which appeared red, has returned to normal after applying OCNT.

Encouraging a healthy gut microbiome in patients with tic symptoms can help alleviate symptoms. Past research has shown that children with Tourette Syndrome exhibit imbalances in certain microbial groups compared to healthy children.<sup>7</sup> The composition of the gut microbiome influences neurotransmitter synthesis, and its metabolites play roles in recovering the nervous system and the blood-brain barrier. Changes in the gut microbiome have been observed in severe neurological diseases such as autism, Parkinson's disease, and epilepsy.

Bioplex, which contains fructooligosaccharides, serves as food for beneficial bacteria such as Bifidobacteria, potentially increasing their numbers in the intestine and inhibiting the growth of *Helicobacter pylori*, which may reduce the risk of stomach cancer.<sup>15-17</sup> Moreover, there are reports suggesting that the intake of prebiotics can improve liver function and reduce inflammation.<sup>18</sup> Therefore, for patients whose stomach, intestine, and liver functions were not optimal, the intake of Bioplex has improved their digestive function, which could potentially enhance their immunity and possibly help alleviate tic symptoms.

Vivakids Gold contains zinc and vitamin D, which are typically found to be low in patients with Tourette syndrome, and omega-3 fatty acids, which are known to affect the regulation of neurotransmitters like dopamine, thus improving neural functions in neurological disorders such as tic disorders.<sup>19,20</sup> From this perspective, the provision of zinc, vitamin D, and omega-3 fatty acids to the patient is crucial for prognosis even after symptoms have subsided, hence the recommendation for consistent intake by the patient.

Even after the disappearance of symptoms, the patient's condition is being continually monitored, and to date, no anomalies have been discovered. This case report represents a singular instance and is not universally applicable to all children with tic disorders, but it represents a new approach that does not involve side effects associated with professional interventions or medications. The report is made with the patient's consent.

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